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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,057	11/25/2003	Sven Bernhard	11884/408001	4191
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KENYON & KENYON LLP 1500 K STREET N.W. WASHINGTON, DC 20005			EXAMINER HOANG, PHUONG N	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/720,057

Applicant(s)

BERNHARD ET AL.

Examiner

PHUONG N. HOANG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 14, 16 - 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 14, 16 - 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 14, 16 – 20 are pending for examination.
2. References, not found in this office action, can be found in previous office action.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/20/07 has been entered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 – 9, 11, 16 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Edmonds, US pub. no. 2003/0231329.

6. As to claim 1, Edmonds teaches a method comprising:

providing an interface (generic driver interface, 0010, 0011) to access a plurality of peripheral devices (printers, 0007 – 0010, 0023) the interface being independent of specific features of the peripheral devices, the interface having a plurality of generic routines (the printer driver is capable of controlling select that printer, 0015, 0024) commonly shared by the peripheral devices (printers 20, 24, 26, and 28, 0015);

upon receipt of a request for a feature, calling the generic routines as a function of features (the printer driver receives the user-selected printer, the user's print job is directed to that printer, 0007, 0009, 0015, 0022);

identifying a peripheral device capable of performing a specific feature corresponding to the feature requested (responds to user's input, broadcast printer's identification information ... printer, 0009, 0021);

executing a native driver of the requested one of the peripheral devices (0021).

Performing on the peripheral device the specific feature corresponding to the feature requested (responds to user's input, broadcast printer's identification information ... printer, 0009, 0021).

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7. **As to claims 2 - 3**, Edmonds teaches wherein the providing an interface includes: providing a plurality of parameters (printer types, 0007 - 0016).
8. **As to claim 4**, Edmonds teaches upon the execution of the driver, accessing the requested peripheral device (printers, 0007 - 0011).
9. **As to claim 5**, Edmonds teaches upon receipt of another request, using the interface to call the generic routines as a function of specific features of another requested one of the peripheral devices (0017).
10. **As to claim 6**, Edmonds teaches one or more of the peripheral devices are printers (printers, 0007).
11. **As to claim 7**, Edmonds teaches wherein the request is a request from an application to connect to the requested peripheral device (0009).
12. **As to claim 8**, Edmonds teaches wherein the request is a request from an application to disconnect from the requested peripheral device (closeprinter, page 9).

13. **As to claim 9**, see rejection for claim 7 above.

14. **As to claim 11**, Edmonds teaches providing a graphical user display (figure 2 and associated text) to allow a user to select the peripheral devices to be accessible by the interface; and providing native drivers corresponding to the selected peripheral devices.

15. **As to claim 14**, Edmonds teaches a system comprising:

at least one peripheral device (printers, 0007) having associated therewith a native driver (printer driver, 0007 - 0011); and

a mobile computer (laptop, 0007) configured to provide an interface (generic driver interface, 0007 - 0011) used by an application to access the at least one peripheral device, use the interface to call a plurality of routines (the printer driver is capable of controlling select that printer, 0015, 0024) as a function of a request for a feature, the generic routines cause the native driver (printer driver installed on the laptop computer, 0007), installed on the computer driver to execute and control the peripheral device (control the printers, 0007 - 0011, 0015, 0022), the interface being independent of device-specific features of the at least one peripheral device.

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16. **As to claims 16 - 17**, Edmonds teaches wherein the mobile computer is further configured, upon receiving a request from the peripheral device to provide data to the application (0009).

17. **As to claim 18**, Edmonds teaches wherein the computer is further configured, upon receiving a request to access the at least one peripheral device, to use the interface to call a plurality of routines as a function of the device-specific features of the at least one peripheral device, and upon receiving a request to access a second peripheral device (the second of various printers, 0015), to use the interface to call the plurality of routines as a function of the device-specific features of the second peripheral device.

18. **As to claim 19**, Edmonds teaches a second mobile computer (a second of mobile professionals, 0004), having the application ported thereto, configured to access a different peripheral device (printers) with the application, wherein the application on the second mobile computer uses the interface to access the different peripheral device without modifying the application.

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19. **As to claim 20**, Edmonds teaches wherein the mobile computer uses the interface (figure 2 and associated text) to limit communication with the at least one peripheral device to one request at a time.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. **Claim 12 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edmonds, US pub. no. 2003/0231329 in view of Lemon, US patent no.5,379,431.**

22. **As to claim 12**, Edmonds teaches a method comprising:

generic routines to connect to peripheral devices, the generic routines being independent of device-specific features of the peripheral devices (the printer driver is capable of controlling select that printer, 0015, 0024);

receiving a request to access one of the peripheral devices (the printer driver receives the user-selected printer, 0007, 0009, 0015, 0022);

determining whether the requested peripheral device is accessible (responds to user's input, broadcast printer's identification information ... printer, 0009);

if the request is a request to connect a computer to the requested peripheral device, cause requested peripheral device to execute (the printer driver receives the user-selected printer, the user's print job is directed to that printer, 0007, 0009, 0015, 0022);

if the request is a request from the requested peripheral device to send data to the computer, notifying the computer that the requested peripheral device has the data, and sending the data from the requested peripheral device to the computer (when the print job is completed, the printer sends a message user's PC, 0021).

Edmonds does not explicitly teach the application is implemented in object oriented programming.

Lemon teaches the abstract interface for connecting peripheral devices (col. 11 lines 34 – 50, col. 5 lines 54 – 63 - col. 7 lines 30), that providing a connection class (class, col. 4, col. 5 lines 54 – 63 - col. 7 lines 30, col. 11 lines 34 – 50); instantiating the connection class to create an object (object is an instance of the class, col. 4) specific to the requested peripheral device, and connecting, through the driver (device driver, col. 17 lines 40 – 50), the computer to the requested peripheral device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Edmonds and Lemon's system because

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the software program would be easily re-used and supports multi-platform operating system (col. 1 lines 20 – 45).

23. **As to claim 13**, Edmonds disconnecting the computer from the requested peripheral device when there is no printing request needed (closeprinter, page 9).

24. **Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edmonds, US pub. no. 2003/0231329 in view of Dorris, US patent no. 5,867,710.**

25. **As to claim 10**, Dorris teaches providing an emulator to simulate access to the peripheral devices in order to test the interface (HAL test, title, abstract, col. 1, figures 3 and 4 and associated text).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Edmonds and Dorris's system because the test would make sure the devices would properly operate with the interface (col. 2 lines 20 – 35).

Response to Arguments

26. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

27. The prior art made of record but not relied upon request is considered to be pertinent to applicant's disclosure.

Dinallo, US patent no. 5,727,212, demonstrating a method for bridging communication between an object-oriented component and device drivers.

Klosterman, US patent no. 6,538,763, desmontrating an abstract base class for adaptable printer driver architectures.


28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONG N. HOANG whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ph
February 13, 2008


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER